

**Before the
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION
Washington, DC 20230**

In the Matter of)
)
Common Format for Federal Entity Transition Plans) Docket No. 130809701-3701-01
) RIN 0660-XC006

COMMENTS OF T-MOBILE USA, INC., AT&T INC., AND VERIZON WIRELESS

T-Mobile USA, Inc.,^{1/} AT&T Inc., and Verizon Wireless (collectively, the “Joint Commenters”) submit these comments in response to the Notice of Inquiry issued by the National Telecommunications and Information Administration (“NTIA”) in the above-referenced proceeding.^{2/} The *NOI* seeks input on a common format for transition plans to be developed by federal entities to facilitate the relocation of, and spectrum sharing with, U.S. government stations in spectrum bands reallocated from federal use to non-federal use, or to shared use, and auctioned by the Federal Communications Commission (“FCC” or “Commission”) and in particular, on the common format for affected federal entities to follow in preparing transition plans for the 1695-1710 MHz and 1755-1780 MHz bands. That spectrum has been designated for conversion from federal to non-federal use and proposed by the FCC to be auctioned with the 2020-2025 MHz and 2155-2180 MHz bands for commercial Advanced Wireless Services (“AWS”) (together, the “AWS-3 bands”).^{3/}

Requiring affected federal agencies to submit detailed information through the common transition plan format will help ensure a smooth transition for federal users and commercial

^{1/} T-Mobile USA, Inc. is a wholly-owned subsidiary of T-Mobile US, Inc., a publicly traded company.

^{2/} See *Common Format for Federal Entity Transition Plans*, Notice of Inquiry, Docket No. 130809701-3701-01, 78 Fed. Reg. 50396 (dated Aug. 14, 2013) (“*NOI*”).

^{3/} See *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz Bands, et al.*, Notice of Proposed Rulemaking and Order on Reconsideration, GN Docket No. 13-185, *et al.*, FCC 13-102 (rel. July 23, 2013) (“*NPRM*”).

licensees, drive auction revenues, and maximize utilization of the AWS-3 spectrum. Doing so will also put all involved parties in the best position to assess how to effectuate the strong statutory preference for relocation over sharing.^{4/}

The Joint Commenters therefore recommend that NTIA:

- (1) Require *all* federal agencies operating in the spectrum at issue to file transition plans, whether they are slated to relocate from the spectrum, truncate operations above 1780 MHz, or share the spectrum;
- (2) Direct federal agencies to build from the Department of Defense’s (“DoD’s”) recent proposal in drafting their transition plans;
- (3) Require federal agencies to disclose precise, comprehensive, and detailed information regarding their operations and regarding the methodologies used for calculating any protection zones and/or for crafting any coordination procedures;
- (4) Decline to adopt the protection zones included in the Commerce Spectrum Management Advisory Committee (“CSMAC”) Working Group reports, and instead allow affected federal agencies to present their own assessments of any projected protection zones and/or coordination procedures, and then federal agencies and commercial licensees will negotiate to determine post-auction the best ways to free spectrum for commercial operations while protecting federal systems;
- (5) Adopt CSMAC’s proposal regarding the prioritization of Economic Areas for the transition of federal systems in the AWS-3 band while continuing to work with auction winners regarding appropriate timelines for relocation;
- (6) Adopt the proposed risk factor disclosure, but supplement it with a mechanism by which sensitive information may be exchanged;
- (7) Adopt the proposed file format for transition plans; and
- (8) Modify and clarify NTIA’s proposed common transition plan format to ensure that the federal agency transition plans provide prospective licensees with the information they need to participate as meaningfully as possible in the AWS-3 auction.

I. INTRODUCTION

The Joint Commenters applaud NTIA for initiating this proceeding, which is a critical

^{4/} 47 U.S.C. § 923(j)(1).

step toward making federal spectrum available for sharing and ultimately relocation. As NTIA notes, the Middle Class Tax Relief and Job Creation Act of 2012 (the “Spectrum Act”) amended the Commercial Spectrum Enhancement Act (the “CSEA”) to permit federal agencies to receive relocation funding for a wider range of activities to facilitate the repurposing of federal spectrum for commercial use.^{5/} The Spectrum Act’s modifications to the CSEA also “were aimed at facilitating better transparency, coordination, and predictability for bidders in FCC spectrum auctions and the ultimate winners of those auctions.”^{6/} A key element of the scheme prescribed by Congress is the requirement that every affected federal entity – including federal entities that plan to share the designated spectrum as well as federal entities that plan to vacate the designated spectrum – submit a transition plan based on a “common format” to be established by NTIA.^{7/} While the statute sets forth certain baseline requirements for these transition plans, NTIA’s proposed common format can be supplemented to help achieve even greater clarity regarding federal agencies’ spectrum use and transition challenges, thus directly furthering the information-sharing-related objectives of the statute.

In particular, NTIA should structure the transition plan format to provide as much data as possible to potential bidders, so that they may make determinations about bidding based upon complete information. As NTIA notes, it “expects that the transition plans’ contents will provide valuable information to prospective bidders preparing for an auction and to winning bidders

^{5/} See Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 245 (2012), amending, among other provisions, 47 U.S.C. §§ 923(g)-(i), 928.

^{6/} *NOI* at 50397.

^{7/} *Id.*; 47 U.S.C. § 923(h)(1) (requiring NTIA to “specify, after public input, a common format for all Federal entities to follow in preparing transition plans”).

planning for their system deployments or leasing strategies.”^{8/} Providing full information transparently will also facilitate both commercial licensees and federal users having consistent expectations regarding sharing or relocation, which will help ensure that any transition issues are identified and resolved as quickly as possible, promoting a smoother transition for all involved parties. In addition, requiring comprehensively detailed transition plans will maximize the ability of all interested parties to comply with the strong statutory preference for relocation over sharing.^{9/}

II. COMMENTS

A. Agency Transition Plans Should Build from the Department of Defense’s Recent Proposal and from Each Agency’s Own Assessment of Any Necessary Protection Zones.

The *NOI* suggests that the CSMAC reports will significantly shape the format and content of federal agency transition plans.^{10/} The Joint Commenters generally agree that the CSMAC reports contain useful information.^{11/} Nonetheless, the Joint Commenters believe that

^{8/} *NTIA Manual of Regulations and Procedures for Federal Radio Frequency Management* (“*NTIA Manual*”), *Annex O: Relocation or Sharing by Federal Government Stations in Support of Reallocation* (“*Annex O*”), at 9-10 (May 2013 Edition).

^{9/} 47 U.S.C. § 923(j)(1).

^{10/} *NOI* at 50398 (“Based on the nature of those forthcoming [CSMAC] recommendations, NTIA seeks further input on what, if any, modifications or additional instructions would be necessary to reflect, for example, protection zones in which AWS-3 operations would be coordinated pursuant to applicable regulatory sharing criteria.”).

^{11/} See CSMAC, *Final Report: Working Group 1 – 1695-1710 MHz Meteorological-Satellite* (July 23, 2013) (“*WG1 Final Report*”), available at http://www.ntia.doc.gov/files/ntia/publications/wg1_report_07232013.pdf; CSMAC, *Final Report: Working Group 2: 1755-1850 MHz Law Enforcement Surveillance, Explosive Ordnance Disposal, and other Short Distance Links* (Jan. 4, 2013) (“*WG2 Final Report*”), available at http://www.ntia.doc.gov/files/ntia/publications/csmac_wg-2_final_report_jan-4-2012.pdf; CSMAC, *Final Report: Working Group 3 (WG3) Report on 1755-1850 MHz Satellite Control and Electronic Warfare* (July 19, 2013), available at http://www.ntia.doc.gov/files/ntia/Working_Group_3_Final.pdf; CSMAC, *Final Report: Working Group 4: 1755-1850 MHz Point-to-Point Microwave Tactical Radio Relay (TRR) Joint Tactical Radio System/Software Defined Radio (JTRS/SDR)* (July 24, 2013), available at http://www.ntia.doc.gov/files/ntia/publications/wg4_final_report_072413.pdf; CSMAC, *Final Report: Working Group 5 (WG-5) 1755-1850 MHz Airborne Operations (Air Combat Training System, Small Unmanned Aircraft Systems,*

agency transition plans should build primarily from the DoD's recent proposal, rather than from CSMAC's recommendations.^{12/}

The *DoD Proposal* proffers a solution “to make the 1755-1780 MHz band available for auction in the near-term, while protecting critical capabilities.”^{13/} The solution stems from “considering the myriad of technical, statutory, and other factors involved,” including the results of NTIA's 2012 1755-1850 MHz Feasibility Assessment, the CSMAC Working Groups, DoD/Industry Spectrum Monitoring, and internal compression studies, as well as the requirements of the CSEA and the Fiscal Year 2000 National Defense Authorization Act.^{14/} According to the *DoD Proposal*, numerous agency operations can vacate the 1755-1780 MHz band, reducing the need for permanent coordination procedures and protection zones.

By contrast, other than Working Group 2, the CSMAC Working Groups did not consider relocation and only provide interference analysis for shared operations, which was generally considered problematic based on the conservative baseline analysis conducted. Moreover, the contours of the protection zones recommended by the CSMAC Working Groups derive from unduly limited and conservative analyses that do not represent the real-world interference environments between federal and commercial users.^{15/} Finally, the Spectrum Act expresses Congress' preference for relocation over sharing.^{16/}

Precision-Guided Munitions, Aeronautical Mobile Telemetry) (July 23, 2013), available at http://www.ntia.doc.gov/files/ntia/publications/wg5_final_report_7-22_dfo.pdf.

^{12/} NPRM ¶ 21 n.80, ¶ 23 n.89 (citing, respectively, to Letter from Karl B. Nebbia, Associate Administrator, Office of Spectrum Management, NTIA, to Julius Knapp, Chief, Office of Engineering and Technology, FCC (July 22, 2013) (“*NTIA July 2013 Letter*”), and to Enclosure 1 of *NTIA July 2013 Letter*: Letter from Teresa M. Takai, Chief Information Officer, DoD, to Lawrence E. Strickling, Assistant Secretary for Communications and Information, NTIA (July 17, 2013) (“*DoD Proposal*”).

^{13/} *DoD Proposal* at 1.

^{14/} *Id.*

^{15/} See, e.g., Separate Statement Concerning Working Group Reports for the 1755-1850 MHz Band (Aug. 29, 2013), available at http://www.ntia.doc.gov/files/ntia/publications/csmac_separate_statement-

Given the foregoing, the Joint Commenters believe that, as between the *DoD Proposal* and the reports of the CSMAC Working Groups, the *DoD Proposal* provides the superior starting point for evaluating the potential for clearing the 1755-1780 MHz band. Consequently, the format and content of agency transition plans should reflect the views of the *DoD Proposal* – not the views of CSMAC – regarding which agency operations will vacate the 1755-1780 MHz band and which will remain. Furthermore, federal agencies should not use the protection zone analyses of CSMAC. Instead, each agency should provide as much information as possible about its spectrum operations and present its own detailed assessment of any protection limits, exclusion zones, and/or coordination procedures that are allegedly required.

In any event, NTIA should make clear that whatever projected protection/exclusion zones or coordination procedures may appear in agency transition plans, they are not conclusive. Rather, such projections should serve as baselines from which commercial licensees and agencies may, after auction, negotiate the protection, exclusion, and/or coordination parameters that will actually apply, keeping in mind the Congressional preference for relocation over sharing.

B. Information Based Solely on Economic Areas Is Not Sufficient.

The *NOI* discusses that the FCC has proposed to license the AWS-3 spectrum on the basis of Economic Areas (“EAs”).^{17/} As a result, NTIA seeks input on whether obtaining transition plan information based on EAs would meet the statutory requirement that each

aug_29-rev2.pdf (stating that “additional effort should be initiated that would greatly mitigate the protection zones for Federal operations including, but not limited to, considering other effects such as clutter, more reasonable interference protection limits and considering a more representative LTE system model”); *NPRM* ¶ 60 (discussing the *WGI Final Report* and noting NTIA’s recognition “that some of the initial technical parameters and techniques . . . were conservative”); *WGI Final Report* at 2 (discussing potential refinements to the analysis).

^{16/} 47 U.S.C § 923(j)(1).

^{17/} *NOI* at 50398; *NPRM* ¶ 52.

transition plan set forth the steps to be taken by the federal entity to relocate or share the frequencies it uses, “including timelines for specific geographic locations in sufficient detail to indicate when use of such frequencies at such locations will be discontinued by the federal entity or shared between the federal entity and non-federal users.”^{18/}

Requiring transition plan disclosures on an EA basis is not necessarily adequate. Federal operations that require protection or relocation will not necessarily comprise an entire EA nor will they necessarily be restricted to a single EA. Merely indicating that federal operations exist in a particular EA will not provide prospective non-federal licensees with sufficient information to assess the nature and extent of federal operations in any particular geographic area. An EA may have, for example, heavily populated areas and completely unpopulated areas. Merely knowing that a federal system may be in one of these areas cannot provide information meaningful to a potential bidder for federal spectrum.

Instead, federal users should provide precise information about system parameters, operational requirements, contours of projected protection zones, contents of proposed coordination procedures, and the methodologies used to craft the protection zones and coordination procedures. Federal users should also include information about the population within an EA affected by their requested protection zone. Federal users are already required to provide this type of information when they seek initial license authorizations from NTIA.^{19/} They should be required to provide no less information as part of transition planning.

While federal users must provide precise system information as part of their responses in the common format, the area that will be encumbered should be the result of a post-auction

^{18/} 47 U.S.C. § 923(h)(2)(D); *NOI* at 50398.

^{19/} *See, e.g.*, Dep’t of Defense, DD Form 1494 Application for Equipment Frequency Allocation (Aug. 1996), *available at* <http://www.dtic.mil/whs/directives/infomgt/forms/dd/dd1494.htm>.

negotiation between the federal agency and the licensee. There should be no *a priori* assumptions regarding the area of protection that is required. The FCC licensee's technology may affect the required protection area as might changes to the federal system. Providing system information through the common format should be just the beginning of the process of cooperation between FCC licensees and federal users. This is consistent with the Spectrum Act's contemplation that federal and non-federal users will communicate during the transition period to maximize the use of affected AWS-3 frequencies.^{20/}

C. Information on Transition Timelines Should Not Reflect Only CSMAC Priorities.

The *NOI* states that NTIA plans to instruct affected federal agencies to follow the recommendations made by CSMAC regarding the prioritization of EAs for the transition of federal systems in the AWS-3 band.^{21/} The Joint Commenters support NTIA's proposal to prioritize relocation from particular EAs in the rankings that industry CSMAC participants have proposed. Following that prioritization scheme will help facilitate the transition of the spectrum to commercial use.

However, the EA prioritization regime should not limit or delay the exchange of information necessary to effectively convert the spectrum to commercial use. Nor should it supersede individual negotiations between auction winners and federal entities. Rather, federal agencies should provide as much information as possible about all areas that require protection, regardless of the EA rankings. Further, agencies should not use the initial transition timelines presented as a reason to delay relocation from the AWS-3 bands promptly, particularly when

^{20/} See, e.g., 47 U.S.C. § 928(d)(3)(B)(ii) (finding that a federal entity seeking payment for pre-auction costs must, among other things, provide for sharing, coordination, and reasonable accommodations for the use of eligible frequencies by non-federal users and make itself available for negotiation and discussion with non-federal users during the transition period).

^{21/} *NOI* at 50398 (citing *WG2 Final Report*).

auction winners may wish to prioritize relocation differently than CSMAC has. Providing information to auction winners will allow FCC licensees and federal agencies to determine jointly how to best facilitate sharing and relocation consistent with both entities' priorities.

D. The Proposed Disclosure of Risk Factors Is Sufficient, But Agencies Should Establish a Process to Provide Sensitive Information.

As described in the *NOI*, agency transition plans will generally be made publicly available, with the exception of classified or other sensitive information, which will be protected in accordance with the procedures set forth in *Annex O*.^{22/} In addition, each transition plan must identify risk factors that could hinder fulfillment of the transition plan by the federal entity, including the extent to which any classified information will affect the implementation of the relocation or sharing arrangement.^{23/} Tab G of *Annex O* requires federal agencies to identify “with as much specificity as possible” the nature of any excluded classified or sensitive information, and Tab H requires federal agencies to identify and explain any potential risk factors that could delay implementation.^{24/}

The proposed disclosure of this information in the *Annex O* common transition plan format is sufficient. However, post-auction, licensees will be better able to cooperate with federal agencies to reach a mutually acceptable transition plan if they are able to access classified or sensitive data. The Joint Commenters realize the importance of protecting critical government information and agree that distribution of classified or sensitive data should be restricted. However, in order for at least a limited group of licensee personnel to be able to work effectively with agency representatives, the federal agencies should sponsor appropriate representatives of licensees post-auction, so that the classified information can be made available on a need-to-

^{22/} *NOI* at 50398.

^{23/} *Id.* (citing 47 U.S.C. § 923(h)(2)(H), (7)(A)(ii)).

^{24/} *Annex O* (Tab G and Tab H).

know basis. Limited sharing of information will promote greater cooperation and ultimately a more effective sharing and relocation process.

E. The Proposed File Formats Are Acceptable.

NTIA seeks input regarding the file formats it will use to publish the transition plans and specifically proposes using “an open format that enables interested stakeholders . . . to retrieve, download, and search the publicly available information.”^{25/} Any non-proprietary, commonly used format that is machine-searchable is adequate. While it is important that NTIA make the transition plan information accessible, the key for interested parties is not the mechanism but the type and extent of the information that is provided.

F. Certain Modifications to Particular Elements of the Proposed Common Format Should Be Adopted.

The Joint Commenters generally agree with NTIA’s proposed common format for the transition plans as set forth in *Annex O* of the *NTIA Manual*. The changes and clarifications set forth below, however, will improve the utility of the transition plan information to prospective bidders and licensees.

1. Tab B – Security Clearances.

The Spectrum Act requires a federal entity seeking payment for pre-auction costs to meet certain threshold requirements, which are set forth as part of Tab B of the proposed common transition plan format.^{26/} One of these requirements is for the federal entity to make available relevant classified information to those with an appropriate security clearance and a need to know.^{27/} Tab B therefore asks whether the entity during the transition period will “make available to a non-federal user with appropriate security clearances any classified information

^{25/} *NOI* at 50398.

^{26/} *Annex O* (Tab B).

^{27/} 47 U.S.C. § 928(d)(3)(B)(ii).

regarding the relocation process, on a need-to-know basis, to assist the non-federal user in the relocation process with the eligible federal entity or other eligible federal entities.”^{28/}

As noted above, instead of simply using this question as a trigger for determining whether reimbursement for pre-auction costs may be sought, federal users should be required to make available to non-federal users classified information and should sponsor appropriate representatives of non-federal users to whom that information can be provided. Lack of information impeded the AWS-1 clearing process. Establishing a framework for the exchange of important information between federal and non-federal parties will prevent the same problems from recurring in the AWS-3 context. In addition, facilitating the exchange of information between federal and non-federal users would be consistent with the recent Presidential memorandum, which calls for spectrum sharing to be used “to enhance efficiency among all users and expedite commercial access to additional spectrum bands . . .”^{29/}

2. Tab C – Technical Information (Items 2-4).

Tab C of *Annex O* in Items 2-4 requests information regarding the applicable frequency assignment and 20 dB emission bandwidth of the transmitter.^{30/} In addition to the information listed, federal agencies should provide the emission designator as described in Chapter 9 of the *NTIA Manual*, or type of emissions used, to help assess the viability of sharing and the ability of federal operations to relocate.^{31/}

3. Tab C – Service Area (Items 10, 13).

In Tab C of *Annex O* in Items 10 and 13, the term “Service Area” is used in requesting

^{28/} See *Annex O* (Tab B – Item 1(d)(4)).

^{29/} See *Expanding America’s Leadership in Wireless Innovation*, 78 Fed. Reg. 37431, 37431 (June 20, 2013).

^{30/} *Annex O* (Tab C – Items 2-4).

^{31/} *NTIA Manual* at 18-21.

transmitter and receiver location information.^{32/} As discussed above, the term “Service Area” should be based on the federal system’s radius of operation, as reflected in the authorization it requested from NTIA, rather than the EA that the federal system would otherwise encumber. This information should be as specific as possible, including but not limited to information regarding the terrestrial area of operation and any airspace. Moreover, as discussed above, the agency should be required to provide specific information regarding its operations – its transmitter location(s) and all relevant technical parameters – which will facilitate a more rigorous analysis of the area that may require protection from an AWS-3 licensee.

By way of example only, each federal agency should disclose technical parameters on transmitter characteristics, such as transmitter power and antenna height, gain, beamwidth, orientation, and polarization; and technical parameters on receiver characteristics, such as mounted height and specifications of the receiver antenna. In addition, each federal agency should disclose (i) the contours of any requested protection zones and the methodologies used to calculate such zones, and (ii) the content of any requested coordination procedures and the basis for such procedures.^{33/} An agency’s projected service area should only be the beginning point for a later discussion with the licensee regarding precisely the type of protection that is required.

4. Tab C – Alternate Frequency Assignment (Item 16).

Item 16 of Tab C of the proposed common transition plan format requests disclosure of information about any alternate frequency assignment for federal entities that are relocating operations.^{34/} In response to this question, it is important for the federal agency to list any

^{32/} *Annex O* (Tab C – Items 10, 13).

^{33/} To the extent that, in NTIA’s view, any of the information described in Section II(F)(2)-(4) does not fit comfortably within Tab C of *Annex O*, NTIA should direct that such information be included in Tab I of *Annex O* (Additional Information).

^{34/} *Annex O* (Tab C – Item 16).

interdependencies – whether the affected system operates with others operated by the same or another agency – and the instructions to the question should make it clear that such data is required. The federal agency should also be required to indicate – either in response to this question or in response to Tab C (Item 2) – whether it is operating pursuant to a regular authorization, temporary authorization, experimental authorization, or otherwise. The instructions should also indicate that this information is being solicited.

5. Tab D – Transition Timeline.

Tab D of the proposed common format requests “a timeline by geographic location (using service area type identified in auction-specific guidance) for when sharing will be permitted and/or use of frequencies will be discontinued.”^{35/} As discussed above, this timeline should reference the federal agency’s particulars of operation, and its assessment of when sharing/relocation can occur near specific locations. Agencies should not reference just the portions of an EA that will be affected. However, agencies’ assessments of when sharing will be permitted and/or frequency use will be discontinued should not be binding. It should be up to the federal agency and the auction winner to determine exactly how much protection is required and for how long. The response to this Item should not pre-judge how long an agency is permitted to encumber a specified geographic area – that determination must be made cooperatively between the auction winner and the federal agency post-auction.

6. Tab E – Expanded Capability (Items 11 and 12).

Items 11 and 12 of Tab E of *Annex O* require the identification of “any costs associated with incidental increases in functionality resulting from the acquisition of state-of-the-art replacement systems intended to meet comparable operational scope, if applicable,” as well as a

^{35/} *Annex O* (Tab D).

description of the expanded capability or additional functionality.^{36/} One of the important changes that the Spectrum Act made to the CSEA is the ability of federal agencies to be reimbursed for expanded capability or additional functionality.^{37/} That expanded capability or additional functionality may provide an important incentive for federal agencies to accelerate their sharing or relocation plans, allowing commercial licensees quicker access to the spectrum, thus satisfying the goals of Congress, the FCC, and the Obama Administration. NTIA should therefore highlight agencies' ability to upgrade equipment as part of the relocation process.

III. CONCLUSION

While the Joint Commenters generally support NTIA's proposed common transition plan format, adopting the changes and clarifications described here will help facilitate the orderly conversion of federal spectrum to commercial use, provide prospective AWS-3 licensees with the information they need to make informed bidding decisions, and ensure that federal operations remain protected. In particular, NTIA should require affected federal agencies to provide detailed information regarding their operational areas and requirements and should refrain from taking any action – including adopting CSMAC's determinations regarding protection zones – that could jeopardize the ability of federal users and licensees to find the best ways to protect federal operations and maximize use of the AWS-3 spectrum during post-auction negotiations. NTIA should also seek to ensure that its policies facilitate information-sharing between federal and non-federal users, including the exchange of classified and sensitive data under certain circumstances. Adopting these and the other changes recommended above will help maximize the use of the AWS-3 spectrum and make that spectrum more immediately available to meet

^{36/} *Annex O* (Tab E – Items 11-12).

^{37/} 47 U.S.C. § 923(g)(3)(B) (allowing federal agencies to be reimbursed for costs to achieve “comparable capability of systems,” including costs associated with “state-of-the art replacement systems intended to meet comparable operational scope, which may include incidental increases in functionality”).

important wireless broadband requirements, consistent with the statutory scheme and spectrum policy goals.

Respectfully submitted,

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